

MOST DANGEROUS SEA

Most Dangerous Sea is the story of the men who took their wooden-hulled, underarmed ships into the enemy's front yard to clear the way for the invasion fleet, or monotonously sweep the channels to principal United States ports.

To the men of the mine warfare service, mine warfare is a dreary, dull business, but as LCDR Lott takes us through operation after operation ranging from Pearl Harbor to Okinawa and Korea, its history is far from dull reading. The constant awareness of death, the sights and sound of battle leap from the pages of *Most Dangerous Sea* to hold the reader through many tales of bravery and dedication to duty.

Friend and enemy alike sail through these pages—Japanese minelaying submarines off the Australian coast before December 7, 1941; German minelaying merchant raiders off New Zealand a year earlier; German submarines laying mines within sight of our shores in 1942, and United States submarines laying mines off Japanese shores a few months later. Here, for the first time, is a graphic account of how Japan was literally starved out of the war with thousands of Navy mines laid by Air Force bombers.

Some of the officers who helped win the war are named in this book, but with fine regard for those usually unnamed lesser individuals, LCDR Lott also names many sailors who did their part in achieving victory. Counting friend and foe, the book names 1,216 ships, 431 men, 4 women, and a dog.

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largest ships afloat were completed in 1942. That at Pearl Harbor cost some \$2,000,000. Twenty-eight deperming stations used over 620 miles of cable and 43,850 batteries.

Flashing and wiping were magnetic treatments designed to give some protection against magnetic mines without the use of degaussing coils. Both processes were similar in principle to deperming, except that vertical, rather than horizontal, magnetic fields were applied to the ship. In wiping, a current was passed through turns of cable surrounding the hull in a horizontal plane at the waterline. The energized coil was then raised to deck level by dragging it up over the hull plates, thus "wiping" the hull with a magnetic field of desired magnitude and direction. In flashing, the vertical field was provided by a large horizontal Z-loop of cable lying on the bottom or supported near water level, but not in contact with the hull. Heavy shots of current—"flashes"—were then passed through the loop. At first the process was thought of as an emergency measure for degaussing submarines, since installation of degaussing coils on underwater craft seemed almost impossible. Submarines were being flashed at New London, Key West, and St. Thomas, Virgin Islands, by mid 1941. Eventually, with more experience in degaussing installations, the girdles went inside ships' hulls instead of outside, thus making them far less susceptible to damage in heavy weather, or sideswiping incidents involving other ships or piers which came too close.

Lest a too-brief account of degaussing and deperming activities produce a wrong impression, it should be emphasized that wartime "degoosers" and "depermers" did not always lead the lives of salty, but shore-based Reillys. Especially in the Pacific. Everything was always different in the Pacific. In the Atlantic, degaussing ranges and deperming stations were easily located because suitable depths and sheltered locations were available almost anywhere. Once an activity was established, it was constantly in use because of the continuous flow of shipping. There was always a source of supply near at hand in the Atlantic, and if transportation was sometimes a problem, at least there was transportation.

Anywhere west of Pearl in the Pacific, suitable real estate was usually acquired only after the former owners were forcefully evicted. Sometimes, after an installation was finally ready for business, the war had moved on westward and left the "degoosers" with not much to do but collect seashells, or pick up and follow the fleet. Admittedly, putting down a degaussing range and then picking it up and moving it somewhere else was somewhat easier than digging and moving a graving dock, but the general feeling among sailors faced with such a task was, "not much."

Sailors, of course, loved to find an easier way to do things, and in March 1942, a fairly new Reserve Ensign named K. E. Hallikainen proved himself

an old salt by figuring out how to move a degaussing range the easy way. "Make 'em mobile," he suggested, "put the works in a small ship." Mobility was what helped whip the Japanese. Soon, small ships with the big name—Mobile Degaussing Unit (YDG)—began popping up at newly captured bases to offer degaussing-while-you-wait service.

The first such craft, *YDG's-1 to-4*, were converted from Yard Patrol Craft. Number 3 was commissioned first, December 24, 1942, with Ensign John H. Graves, USNR, as her Christmas Eve skipper. Last YDG was Number 11. Lieutenant John B. Fallon, USNR, put her in commission on the same day Japan ceased hostilities. YDG's were an assorted crowd. Numbers 6 and 7 were the ex-YMS 344 and 480; Numbers 8, 9, and 10 were originally 180-foot PCE's. *YDG-5*, commissioned by Commander Seventh Fleet August 1, 1942, was originally an Australian coastal trader and the only steam driven craft in the crowd.

The degaussing installations carried by the YDG's were highly sensitive to ocean currents and swell, or choppy waters, and could never entirely supplant shore-side magnetic ranges, but they were indispensable in places where deep water or other conditions made such ranges impractical. YDG's expedited degaussing work at newly captured bases before the permanent units arrived, they required fewer personnel, were more economical over a longer period, and were always ready to up-anchor and follow the fleet. In the Pacific, where fleet mobility became a World War II marvel, the portable degaussing service offered by the YDG's helped keep combatant ships on the move, in spite of mines.

In spite of mines. There was the whole point of mine warfare—the mines which lurked and waited beneath every sea. Whether they were German, Japanese, Italian, British, American or Russian, they all fitted into the same general classifications and all presented friend and foe alike with the same choice—detection and defense, or destruction.

All mines were of two types—controlled, or independent. Mines laid in harbor defense installations by the U. S. Army, and in the Panama Canal approaches, were electrically controlled mines. Each was wired into a system which enabled a shore control station to make it safe or dangerous as desired, or fire it at will. Such mines could be moored—buoyant cases held at an exact depth below the surface by a cable and anchor—or ground types, which sat on the bottom.

Independent mines, laid in the open sea or along the continental shelves, were usually ground or moored types, with variations known as drifting, creeping, or oscillating mines. Independent moored mines could be fired by contact with a ship, or through the ship's influence. Ground mines could be